Claims:

1. (Previously Presented) A method of evaluating frame error probability (FER) of a selected communications link in a wireless telecommunications network, the link being between a MIMO transmitter comprising one of a base station or mobile user terminal, and a MIMO receiver comprising the other of the base station or mobile user terminal, the method comprising determining values of instantaneous channel capacity of a MIMO channel of a mobile user terminal at multiple time instants over a predetermined time, processing the values to determine a level of channel capacity such that any of the instantaneous channel capacity values is to a predetermined probability below that level, and looking up said level in predetermined calibration data of FER versus the channel capacity level so as to provide an FER value.

2. (Original) A method according to claim 1, in which the predetermined probability is 0.5 so the level of channel capacity selected is the mean of the instantaneous channel capacity values in the predetermined period.

3. (Original) A method according to claim 1, in which the predetermined calibration data of FER versus level of channel capacity is provided by mathematical modelling of a MIMO transmitter and MIMO receiver with various channel matrix states and various average signal to noise ratios.

4. (Original) A method according to claim 1, comprising estimating average signal to noise ratio experienced by the mobile user terminal during the predetermined time period, and also using this to evaluate FER, the predetermined calibration data being FER as a function of both channel capacity level and average signal to noise ratio.

5. (Original) A method according to claim 1, including calculating each value of instantaneous channel capacity from parameters including the channel matrix state of the link, and the average signal to noise ratio experienced by the link at that time.

6. (Previously Presented) A method of providing a set of FER values indicative of system level performance of at least part of a telecommunications network, said at least part including MIMO

communications links between base stations and mobile user terminals, the method comprising: for each of at least some of said communications links evaluating frame error rate using the method of: determining values of instantaneous channel capacity of a MIMO channel of a mobile user terminal at multiple time instants over a predetermined time, processing the values to determine a level of channel capacity such that any of the instantaneous channel capacity values is to a predetermined probability below that level, and looking up said level in predetermined calibration data of FER versus the channel capacity level so as to provide an FER value.

7. (Previously Presented) A wireless telecommunications network comprising a MIMO transmitter comprising one of a base station or mobile user terminal and MIMO receiver comprising the other of the base station or mobile user terminal, and a processor operative to determine values of instantaneous channel capacity of a MIMO channel of the mobile user terminal at multiple time instants over a predetermined time and to process the values so as to determine a level of channel capacity such that any of the instantaneous channel capacity values is to a predetermined probability below that level, the network including a look-up memory of predetermined calibration data associating frame error probability (FER) with channel capacity level and an indicator operative to give an indication proportional to the FER corresponding to the level of channel capacity determined.

8. (Previously Presented) A station for wireless telecommunications comprising a processor operative to evaluate frame error probability (FER) between a MIMO transmitter comprising one of a base station or mobile user terminal and MIMO receiver comprising the other of the base station or mobile user terminal, the processor being operative to determine values of instantaneous channel capacity of a MIMO channel of the mobile user terminal at multiple time instants over a predetermined time and to process the values so as to determine a level of channel capacity such that any of the instantaneous channel capacity values is to a predetermined probability below that level, the station including a look-up memory of predetermined calibration data of FER versus channel capacity level and an indicator of the FER value corresponding to the level of channel capacity determined.

9. (Original) A station according to claim 8, which is a base station.